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Half of this report is an overview of national issues and trends expected to affect the future complexion of education programs, particularly those related to staffing problems in eight areas: early childhood education, new emphasis in elementary and secondary education, teaching the children of the poor, teaching handicapped children, vocational education, student counseling, school administration, and higher education. The second half of the report focuses on the federal interest in education manpower needs through the Education Professions Development Act (EPDA). It contains sections discussing the diversity of teacher functions, differentiated staffing, the Teacher Corps, school-university partnerships, and teacher certification. Included also are brief descriptions of each of the priorities set by the Office of Education for the allocation of EDPA funds in fiscal 1970: training teacher trainers, career opportunities program, teachers of basic subjects, leadership development in education, early childhood personnel, teachers for the handicapped, vocational and technical education personnel, teacher improvement through curriculum development, strengthening school administration, support personnel, and more effective school personnel utilization. (JS)

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THE PEOPLE WHO SERVE EDUCATION

A Report on the State of the
Education Professions by
Harold Howe II, U.S. Commissioner
of Education, 1966-68

U.S. Department of Health, Education, and Welfare

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P R E F A C E

The Education Professions Development Act requires the Commissioner of Education to "prepare and publish annually a report on the education professions, in which he shall present in detail his views on the state of the education professions and the trends which he discerns with respect to the future complexion of programs of education throughout the Nation and the needs for well-educated personnel to staff such programs." This first report is an overview of the state of the education professions. It focuses on certain aspects and issues in the field of education and gives particular attention to developments which are producing changes in the education professions. Intended for a general audience, the report's primary purpose is to stimulate thought and discussion about the problems which face us.

This report, which has been prepared for rather wide distribution, is intended to serve as an introduction to a far more detailed report on the state of the education professions that will cover the matters discussed here in some depth and include selected statistics on education manpower. That more technical report, which will have a more limited distribution, will focus largely on the present "state of the art" of the education professions. This overview, on the other hand, summarizes the chapter by chapter analysis in the full report of the current situation and extends this analysis by indicating the future directions of the needs and trends in the education professions. This report was prepared in consultation with the Academy for Educational Development.

The Education Professions Development Act holds great promise. The perplexing and difficult problems of developing trained manpower for our schools and colleges need the concerted action which this legislation fosters. As we move into the first year of activity under this act, I am encouraged by the universal interest of educators at every level in moving together toward a solution to these problems. It is my hope that this first assessment will further intensify that interest.

Harold Howe II
U.S. Commissioner of Education

December, 1968

STAFFING OUR SCHOOLS AND COLLEGES

Front-page pictures of teachers striking and marching, breaking open schools and going off to jail have just about finished off our lingering image of the mythical American educator as a long-suffering pedagogue, sustained more by dedication than hard cash, willing to accept second-class status in his efforts to educate our children. The deep-seated feelings now being aired in the press and on television have jolted many people into the realization that this image is no longer valid, if indeed, it ever was. What has happened to American schoolteachers, once the most docile of public servants, is that they have formed ranks in unions and teachers' organizations and joined the battle that is raging in our schools today. They are demanding that their voices, too, be heeded among the many that are clamoring for attention. By exercising their new-found power in the political arena, members of the education professions have achieved new status in the community, and have forged an instrument with great potential for changing and improving our schools in the future. The striving by teachers for greater participation in making decisions and developing policies in education may sometimes conflict with similar strivings on the part of parents and the community and on the part of students. But the impulse toward more genuine and meaningful involvement and participation on the part of each of these groups--teachers, community, and students--can become a positive force in needed reform and improvement in education.

However, teacher militancy is only one example of the new forces abroad in contemporary education. The variety and intensity of the factions that have catapulted education to front-page status reflect its vastly increased importance in today's society. We are asking our schools to compensate for past social injustices, to ameliorate the effects of rapid social change, and to improve upon their performance of traditional academic functions--a combination of requirements that is straining the resources of our educational system to the breaking point. Faced by growing recognition of the numbers of students with increasingly heterogeneous needs, American education is expanding at every level from preschool through graduate and continuing education in an attempt to meet the demands upon it.

Where are we to find the men and women to staff these programs, to assume these new duties and responsibilities? Although the number of people training to become teachers is steadily on the increase, we must face the fact that turning out more graduates who are qualified to teach does not necessarily add to the supply of fully qualified educators. Schools today face stiff competition in their search for people of ability, and teacher dropouts are as indicative of our educational problems as are student dropouts. In our service-oriented economy, it is exactly those interpersonal skills and communications talents possessed by the good teacher that are most in demand in other sectors of the economy; those who have acquired such skills can often command higher salaries elsewhere than in teaching.

We lose many potential teachers much further back along the line, however. The school experiences of children and young people often discourage them from even considering education as a career. No one is more aware of the harassments that dog the heels of a teacher than are the students themselves, and many of them decide quite early that they want no part of such problems. Yet the keenly responsive young people of today would in many cases like nothing better than to pursue a career with some kind of social relevance. The present ferment among our students is largely a result of the conviction of many young people that education must be more responsive to the world beyond the school walls. They want to change things, and they are willing to work very hard to do it. More important, they are willing to work for and with established organizations in making those changes, if these will only meet them halfway. Obviously, there are negative aspects to the new social awareness of the young--they are evident in the words and actions of those who believe that in order to change any part of the system the world must be destroyed. But the destroyers, although they make the most noise, are still very much in the minority, and they will remain so if we can give to the creative majority the kinds of roles in which they will feel that their commitment to social progress is having some effect. They are needed nowhere so much as in the world of education.

Yet such people are sometimes discouraged from entering the profession by the required training programs, the situation in the schools themselves, and the discontinuity between these two experiences. This is especially true for the urban schools. The complexity of the problem is accentuated by the fact that those who feel the discontinuity most sharply comprise two very different groups, with training backgrounds at the opposite ends of the spectrum from one another. Teachers whose training has been the most traditional often find themselves simply unprepared for the multitude of tasks they are called upon to perform. Others, who have been graduated from more sophisticated programs such as some offered to MAT candidates, find the structure and organization of the actual school impervious to many of the ideas and practices they found most stimulating during their training.

Furthermore, many teachers, especially men, cannot find satisfaction within a system that makes no essential distinction between the duties of the novice and of the experienced teacher. Continuing challenge and the possibility of significant advancement as a teacher are often lacking, and there is little or no opportunity for even the experienced teacher to assist in charting the long-range course of the school. Additionally, salary schedules for teachers are typically based upon an assumption that all teachers grow in exactly equivalent ways at exactly the same speed, and that greater expertise is automatically conferred by a greater number of academic credits. There is therefore very little motivation for teachers to develop career plans that stress achievement, recognition or responsibility. Some leave teaching to become administrators, for which they may or may not be well-suited; others abandon the field altogether.

The exodus of talented people is all the more serious in the light of the expanding educational programs of recent years and the need for greater growth. Looking back over the considerable progress we have made in curriculum improvement, innovative teaching practices, and better training, we must nevertheless recognize that the majority of our children have not been affected by these improvements.

Most importantly, we have not done nearly enough for the racially and economically oppressed who need our help most. Many decades have passed since the idea prevailed that the job of the schools at the elementary and secondary level was to sort and weed out students. The importance of individual needs of students has long been recognized; the major fairly recent development is in employing new learning and teaching techniques. Programs in vocational education integrated with those of an academic high school are based on this understanding. The effectiveness of programs such as Head Start and the Teacher Corps are also indicative of the kinds of developments we need and of the variety of new careers that are opening up within the field of education.

As the scope of such programs increases, as their success encourages schools to incorporate their methods and approaches, and as further research in learning theory suggests new ways by which instruction can be truly individualized, we will have a greater need for qualified teachers. More wide-spread, and at the same time more precise, use of technology in the school will not alleviate the demand for the special talents of human beings; but the combination of human and technological skills can bring about the kinds of improvement in our educational system that will assure the optimum response to the individual needs of each student. The very word teacher as we now define it will be inadequate to describe the variety of people and skills we will need to serve our schools.

One important dimension of the preparation and continuing education of educational personnel of all kinds seems in danger of being forgotten. Educational personnel will be more effective if they bring to their work a keen sense of the international and multicultural world in which American education takes place. Schools and colleges responsible for training personnel can provide experiences designed to combat parochialism on the part of educators.

Early Childhood Education

The rise to importance of early childhood training stands as a major example of the expanding nature of the world of education. For many years we have operated nursery schools primarily for the white middle-class child. The typical preschool educator has been interested in setting up an environment in which the natural development of the child could take place through playing with others; the acquisition of knowledge and the remediation of earlier deficiencies received secondary emphasis. This approach is being questioned today by the psychologists and researchers who have entered the field of early childhood education, often by way of Federal programs aimed at improving the chances of school success for the ghetto child.

As we look deeper into the problems of children in low-income areas, as we seek to break the vicious circle by which poverty begets poverty, the importance of the first six years of a child's life in respect to his future chances has come to be more and more widely recognized. Through Federal programs such as Head Start, we have seen some early indications of how successful programs can give children of this age the self-confidence and language skills needed to succeed in school. The increasing emphasis on this part of our educational system is exemplified by the recommendations of the National Education Association and the New York Board of Regents that public schooling begin in the fourth year of life. If we are to be prepared for tremendous increases in the number of children enrolled in early childhood education, we are going to have to do more than simply increase the number of programs proportionately. We must discover what kinds of programs we should be offering.

Of primary importance is the need to base theory on past experience and also on the observation of all kinds of children. The traditional preschool teacher instinctively "knows" what children can do through years of experience; the psychologist-researcher, interested in changing behavior, rejects this as unscientific; he wants evidence. The two groups have, on the whole, been working with different kinds of children: the traditional preschool teachers with middle-class children, and the psychologist-researchers with deprived children in federally-supported programs designed to help children from low-income areas. Operating out of their knowledge of learning theory, some psychologist-researchers believe that the language deficiencies and other cultural lacks suffered by the underprivileged child can be repaired through control, intensive interaction, drilling, and the constant focusing of the child's attention--methods which chill the blood of the traditional motherly preschool teacher.

The effectiveness of these new approaches cannot be measured without a great deal more research into all aspects of the child's life from birth to six years. Although there is no lack of theory on the subject, the theory has too seldom been developed out of observed behavior of normal children in a natural setting. The combined resources not only of schools of education but of departments of psychology and the social sciences will be required for the further investigation of this area and for the training of people to make such investigations. We must take a hard look at the notion that the older the student is, the greater the number of degrees are necessary for those who teach him. It may well turn out that those dealing with very young children require the most sophisticated training. At present, there are only a small number of schools of education offering specific programs in preschool and kindergarten teaching, and even fewer that offer a doctoral degree in this area.

In addition to research personnel, we will need many more people to staff growing numbers of programs. The emphasis of the Federal Government upon improving the educational chances of children from the ghetto and the rural slum through the means of a rewarding early childhood experience requires the training of personnel sensitive to the needs of different subcultures. Such teachers will have to be prepared to visit with children's parents in the home, and to cooperate with other agencies. We may find, as in other areas of education, that the performance of some of the tasks in future early childhood education is more dependent upon the possession of certain personal qualities and sensitivities than extensive academic training.

Looking even further ahead, much formal early childhood training may be based in the home. This trend is prefigured in the parent-child centers now being developed in some parts of the country. The activities of these centers are based on the understanding that early childhood education is inevitably a parental undertaking, and that the best way of securing an adequate educational start for children is through the training of the mother. Preschool education of the future is likely to involve the mother to an even greater degree, with its success dependent upon home visits by trained personnel in order to maintain contact and to disseminate information. Today's programs in preschool education in urban and rural slums are the seedbed of tomorrow's greatly expanded efforts. The effects of some pilot programs in changing the behavior of poor children and preparing them for participation in the mainstream of American life, have demonstrated the tremendous importance of the early educational development of the child. We must now act upon these new understandings.

Elementary and Secondary Education: A New Emphasis

The expansion of early childhood education will inevitably demand additional changes in elementary and secondary education. No one comparing our public elementary and secondary schools of today with those of 20 years ago can doubt that we have made great strides in improving the curriculum, upgrading teacher education, and increasing our willingness to experiment with new ideas. Today many schools are using innovative practices such as team teaching, nongraded programs, audiovisual devices, expanded library resources, curricular departures such as games and simulation, and courses in problem-solving and decision-making. The use of museums, theaters, and of the talents of community leaders and specialists has been increasingly integrated into the educational programs of the schools.

It must be admitted, however, that these reforms and innovations have served for the most part only to improve the educational opportunities of the college-bound student. The 70 percent of our secondary school pupils who never receive a baccalaureate degree, the "neglected majority," have been much less affected by strengthened academic curriculums and more stimulating formal teaching methods. If we are to hold to our belief in the right of the individual to the educational experience

that best fulfills him, then it is to this neglected group that we must now address ourselves most strenuously. While maintaining our interest in the able college-bound student, we need to reawaken our commitment to providing a comprehensive educational experience for all our students.

The Federal concern with the desegregation of all public schools is only one facet of a growing national interest in the identification of groups whose interests have been neglected and who therefore require special programs to remedy past history. We are, for instance, at last giving our attention to the special problems of the black ghetto student, the American Indian and the Mexican-American, all of whom have been asked in the past to succeed in an educational system that in content and structure was geared to a white middle-class culture. The inability of these students to succeed, as witnessed by their high dropout rates, can no longer be blamed on student inadequacies, but must be laid in large part to the failure of our schools.

In the immediate future more effort and imagination must be directed towards these students whom our schools have largely failed. The success of our efforts will depend upon the extent to which we are prepared to depart from certain previously sacrosanct practices and attitudes and to accept the necessity to try new methods. Individual experiments all across the country suggest possible approaches: street academies, the Harlem Preparatory School, the academy organized by the Christian Action Ministry, all are experiencing success with dropouts from the public school system. Financed by private foundations and by industry, their impact is necessarily limited to a relatively small number of students. The public schools themselves must assume the burden for the majority.

Teaching the Children of the Poor

The Federal Government has focused the attention of the educational community on the development of the means to alleviate the conditions of inner-city schools and the schools of the rural slums, both in terms of what needs to be done and in providing the people to do it.

Federal legislation has been guided by what might be called the principals of "critical mass." The term is borrowed from physics. Within the educational context, it suggests that all those human and material resources necessary to making a difference be focused upon a given problem: any amount of resources short of the critical mass, it suggests, will fail to produce measurable change.

The principle of critical mass is vital to the problems of the ghetto student. For, in addition to the detrimental effects of poverty, ghetto children are further penalized in that their education too often falls into the hands of the least experienced teachers in the school system. Teachers with seniority have the option to transfer out of ghetto schools into "better" schools where conditions are likely to be more compatible with the teacher's own experience and training. Tragically, these transfers often occur just at the point when the teacher has learned to deal effectively with the problems of the ghetto school; the teacher departs, taking his valuable experience with him, and the new teacher must find his own way--until he too has achieved the seniority that will allow him to transfer out of the ghetto school.

Yet the success in recruiting of the Peace Corps and of the Teacher Corps, as well as a number of other organizations dedicated to social service, prove that there are many young people in this country eager to work for the improvement of society, and who are seeking ways in which their idealism may find concrete expression. The challenge to American education is to build bridges between this dedicated corps of would-be educators and the needs of our neglected students; and the answers to that challenge lie not only in the restructuring of our schools but also in the development of relevant programs of teacher training.

The experiment in the preparation of urban teachers recently launched by the School of Education at Fordham University is one attempt to provide such a program. It is based upon the significant recognition that all schools of tomorrow must be increasingly community-centered; that is to say, they will shape their goals in cooperation with the community, rather than imposing an alien structure upon the community. As urban schools become geared to the present needs of urban students instead of to those of students who long ago left for the suburbs, urban teacher preparation will have to be closely associated with community goals. Fordham has planned its experimental program in cooperation with the urban schools adjacent to its new location at Lincoln Center in New York City. Students, parents, and the community have had the opportunity to make clear what kind of teachers they want to have in their schools, and the Fordham program has been designed to produce that kind of person.

The Fordham program assumes that those who have been thoroughly prepared for urban teaching are unlikely to experience serious difficulty in adjusting to a suburban classroom situation, but that those prepared for suburban teaching cannot be expected to cope very easily with the greater problems of the urban school. On-the-job training, under adequate supervision, is an integral part of the program; the teacher trainee at Fordham will have the opportunity for immediate exposure to a classroom situation, and an urban classroom at that. The Fordham program seeks to bridge the gap between preservice training and the initial experiences of the young teacher in the classroom. In recognition of education's place in our social structure and of the advances that are being made in

the study of learning theory, Fordham will make use of the resources of its other departments as well as those of the school of education, in an effort to prepare teachers sensitive to community needs and the individualistic nature of the learning process.

Teaching the Handicapped Child

Our new understandings of the learning process are affecting programs not only for the children of the ghetto and the rural slum, but are also changing our ideas as to the extent to which handicapped children, with either physical or mental disabilities, can be educated; no longer is it automatically assumed that the best that can be done for such children is to insulate them from the world, from physical, psychological and mental strain. There is a growing feeling that isolating them from normal children may in many cases be more damaging than it is efficacious. But having discovered that the handicapped child is capable of learning, we are going to need teachers in this field whose abilities go beyond good hearts and willing hands. We need more and better prepared specialists. We must also place new emphasis on developing the regular classroom teacher's understanding of learning processes and skill to work with the handicapped child. Furthermore, we need to adapt our attitudes towards the handicapped child, especially those who are mentally and emotionally disturbed, so that he is seen not as a total aberration from the norm, but simply as an individual with special needs. Only when we have fully recognized the individual differences among all "normal" children will we be able to deal effectively with those "special" children who are a little more different.

Vocational Education

We are also reconsidering our attitude toward vocational education. Until recently, it was too often regarded separately from an academic high school education. It was a cul-de-sac rather than an open road to the future, unequal both by implication and in its actual effects. The assumption by many educators that vocational programs were merely dumping grounds for academic failures led in many cases to their being exactly that.

Several developments within our society have challenged this assumption. The rapid growth of technology has demanded and will continue to demand increasing numbers of skilled subprofessional workers with some degree of theoretical knowledge. The training programs to meet this demand must therefore develop a new relationship between technical-vocational courses and academic courses. Furthermore, as our economy turns more and more to providing services rather than products and automation takes over duties once performed by humans, the number of blue-collar jobs is dwindling. At the same time, the number of service-oriented jobs is growing, and these positions often demand not only vocational training but also skills in communication and human relations traditionally associated with a strictly and technical education

is underlined by the constant changes in job functions in our economy and by the realization that in one lifetime a man may have to be trained, retrained, and further retrained in order to keep up with the developments in his field of work. Thus vocational programs may eventually be expected to place as much emphasis on learning how to learn as on the acquisition of specific job skills.

Training programs for manpower in vocational education must be based on an understanding of the close relationship between vocational education and the world of work. If, for example, we are able to involve community members on a full- or part-time basis in academic programs, how many more such opportunities present themselves in vocational education? And if the needs of business and industry should be heeded by vocational educators, why not have business and industry become part of the educational system? Work-study programs, in which a student receives part of his education on the job (and gets paid for it) have proved highly successful, as judged both by training standards and by their effectiveness in keeping the student in school.

Between the school and the amalgam of business and industry, then, there must be a constant interaction. We must make a place for men from business and industry who can teach, and for teachers who understand the workings of business and industry. The growth of distributive education (the vocational training of people for service-oriented positions) is based on this relationship. Plans are being developed in several cities whereby buildings might be jointly occupied by schools and businesses or industries, thereby producing rental income for the schools and providing convenient on-the-job training opportunities for students.

In addition to recruiting more teachers from business and industry, we must increase our supply of vocational educators trained to deal with the kinds of students these programs attract, and who can themselves bridge the gap between school and job. Counseling, for instance, is extremely important in a good vocational education program. Too many students, especially those from disadvantaged backgrounds, are not even aware of the kinds of jobs for which they might well be suited, and instead make tentative job decisions based merely on the work histories of their fathers or friends. In seeking to free the child of the slum from the cycle of poverty, we must make sure that he is made aware of career opportunities that might ordinarily never occur to him; the trained vocational educator must be able not only to point out such opportunities, however, but also to suggest the best ways of taking advantage of them. Teachers in junior and senior comprehensive high schools could provide a great service by suggesting career opportunities at the same time as they explain the subject matter of the various academic disciplines. For instance, in teaching the theory of sound waves, it could be pointed out that both oceanography and aerodynamics make extensive use of the theory. Such correlations may open up to the student entirely new ideas about what he would like to do in the future.

Student Counseling

As vocational programs become more diverse, and at the same time become more thoroughly integrated with the comprehensive high school, as continuing education further expands, the role of the guidance counselor in all schools becomes more exacting. If, for example, we offer truly relevant programs in vocational education, if their planning and implementation is as exciting and as innovative as the best that has taken place in academic programs, then they can become avenues of personal development for other than the poor and the would-be dropout. Just as greater sophistication in testing and in the educational programs in ghetto schools will discover and subsequently prepare greater numbers of youngsters who could benefit by a college education, so innovative programs in vocational education will open the way for the training of the middle-class child who may be more suited for and interested in a career for which a traditional collegiate experience will be of no particular help. In short, the guidance counselor, in the years ahead, should be prepared to direct children towards educational programs based on their interests and abilities, and not on their economic status.

That the guidance counselor will run up against some opposition from both parents and students in the performance of this function is perhaps an understatement. "Hell hath no fury like an upward-mobile parent scorned," it is said; but if the schools are to exist as places where individuals can fulfill their potential, instead of being obstacle courses leading to the universal goal of a college degree, educators must see to it that parents and community understand overall educational goals. They must not add to the mania for degrees that seem to grip some segments of our society; they must not encourage what they know to be untrue: that the only legitimate students are those who successfully complete secondary school and go on to a college experience. If we are to give every student the best education, then educational leaders must make sure that the community is with them and not against them in the effort.

School Administration

In discussing the educational leadership problems involving the administration of the many programs and organizations that make up our school systems, we must understand the relationship of public education to the society it serves. Whether schools should reflect society or actively involve themselves in the evolution and improvement of society is a central question for educational leaders. If educators are to assume a primary and active role, we must find ways to encourage the commitment of men and women with educational leadership potential who can also identify and react constructively to the many major social issues facing education today, rather than maintaining a merely defensive posture.

In the area of administrative manpower, as in other areas of education, we have too little data not only as to the numbers and characteristics of people engaged in administrative functions but as to what these functions are. The need for more such data is crucial, and will increase as the Federal Government, State and local agencies, private industry, and nonprofit groups become more deeply involved in educational programs. The primary problem is to attract and prepare administrators of high quality. To emphasize quality is simply to recognize the tremendous potential influence and power that can be exerted to better the schools by a leader who has dynamic personal qualities and sufficiently sophisticated training. Such influence can be exerted both within the school and on society as a whole, if our educational leaders will accept the task.

Fundamental to the development of a corps of outstanding administrators is successful recruitment, and here we run up against a practice which needs to be re-examined. By our traditional requirement that all principals first be teachers, all superintendents first be principals, are we not unnecessarily limiting the pool from which we draw potential leaders? This is one area in which we could with particular profit extend our search for new talent beyond the education profession itself, seeking out talent wherever it exists, and not only among white, middle-class males. The influence a farsighted administrator can have in changing and improving an entire system means that the limited funds available for seeking out such people will have an impact far beyond their dollar value.

It would be much easier to recruit people if we knew more about what sort of stuff the successful administrator is made of. Although attributes such as sensitivity, courage, style, and even charisma are essential to the good administrator as mental ability and scholarship, they are less easily measured, and therefore are not often enough considered in recruitment and preparation programs. A true appreciation of the importance of these personal qualities might result in the broadening of the range of people we consider for top jobs in education. In some cases, personal leadership qualities should perhaps even take precedence over particular functional skills, when those skills could be just as easily delegated to another person. Leadership qualities, after all, are relatively rare, while functional skills are not.

The role of the administrator in relation to the community needs to be clarified, too. While it may be true that the successful administrator does not require the experience of long years of teaching, it is also becoming more important than ever before that he be a "teacher" in respect to the community at large, that he have an acute awareness of the social structure within which schools operate and be able to communicate the needs of the schools to the community upon which the schools depend and which they serve. Together with this ability, of course, there is a need for the administrator to be knowledgeable about the socio-political environment, so that he may successfully appeal to the proper agencies for support for his programs.

The same principles that we have applied to the preparation of teachers pertain to the preparation of administrators. In a field in which programs are proliferating at all levels, the new administrative strata are constantly being formed, we need to ask ourselves just what kinds of duties administrators at each level actually perform, and to design the training programs accordingly. Even without thorough definitions of functions a few things seem clear, however. Administrators should be prepared within the context of the entire university; they will be entering a profession in which enormously complex demands will be made of them, and they will need a widely diversified background. Back-up from all departments of the university should be matched by an internship period in which the potential administrator has the opportunity to become acquainted with actual problems in specific environments. One example of this expanded approach is a new program offered at Teacher's College, Columbia University, in which prospective school administrators have the opportunity to gain perspective on the problems of the schools through an internship in a variety of areas including welfare agencies, mayor's offices and State education departments, as well as in the schools themselves.

Just as teachers should have the opportunity for professional growth through the easy availability of relevant inservice training programs, so administrators should be able to continue their education after they have been employed. As the demands upon the schools change, as new Federal and State programs are mounted, there should be time for administrators of schools and local and State education agencies to get together at conferences and in special groups to familiarize themselves with developments in the field.

The central position which our schools occupy on the battlefield of social change today makes the need for exceptionally outstanding educational leaders imperative. The pressures from outside the schools are being matched by increased teacher militancy from within, a trend that will continue and will make new demands upon the members of the administration. With the authority of the administration challenged by the emergence of teachers as a bargaining force, qualities of leadership in today's administrators become even more crucial.

Higher Education

Higher education occupies a particularly exposed position on the battlefield. Not only is it being called upon to reform its own ranks, but simultaneously it is expected to dispatch rescue parties to various other sectors of the field. It is clear that these multiplying demands must lead to a considerable readjustment of the university's conception of its responsibilities toward the community, and a better understanding of the advantages that can accrue to both sides of this partnership.

The call for greater university involvement and increased leadership in the preparation of educators is a clear one. All levels of higher education are extending their commitments to the young of our country, but no development is more important than the expanding number of two-year community colleges. The growth of these institutions, together with the increased demands being placed on colleges and universities, has raised questions concerning the quality of and the necessary training for classroom teaching in higher education. In the face of the limited number of persons with doctoral degrees to staff new programs and institutions, many educators have begun to take another look at the assumption that a doctoral degree is necessary to good teaching. For example, as the role of the community college emerges, it is clear there is a need for teachers who can combine a strong academic background with a sensitivity to special student needs. Programs leading to a doctoral degree do not necessarily nurture the personal qualities in teachers that community colleges require, and in many cases discourage those possessing them from entering the profession.

Students in colleges and universities are demanding to learn new things in new ways. Many of their demands are directed against ancient practices of university teaching, a number of which educators are equally ready to question. Is it, for instance, in the best interests of higher education that 70 percent of all general education courses at one of the Nation's major universities are taught by graduate assistants, almost none of whom have any preparation for teaching? Is the lecture system, as we know it, archaic? Couldn't we perhaps make more efficient use of the time and knowledge of our great university professors by employing technology to facilitate and extend communication between them and their students? Are we, in short, allocating our human resources in higher education in the most efficient way possible.

New approaches to training the college teacher range from the revitalization of the master's degree to the establishment of new degrees, below the doctoral level, designed specifically for college teaching. It has also been suggested that doctoral requirements be adapted to the needs of teaching, replacing the traditional academic dissertation with a research project on some aspect of teaching. All these ideas represent the concern in higher education, as in other levels of our educational system, to make training relevant to job performance. Rapid obsolescence of job skills has become widespread in our society, but none seem faster-changing than those of the top administrators in higher education. The days when a college president could spend his time raising money and hoping for a winning football team can never be recaptured. Today, costs are rising, enrollment is expanding, knowledge is exploding, and students are clamoring. These pressures are forcing higher education to examine and improve on past performance, and to assume social responsibility on a larger scale than even before. Many colleges are finding it difficult to continue to operate as they have in the past and are struggling with new organizational and managerial systems to encourage the intelligent and responsive allocation of limited resources among seemingly unlimited

tasks. Increasingly they are turning to others for assistance. There is today far more extensive interinstitutional cooperation in matters of administration, recordkeeping, library facilities, program offerings, and the use of educational technology. Most States have adopted some system of State coordination of public higher education, ranging from the creation of a single statewide university system to State boards of higher education to voluntary cooperation between institutions. Various forms of regional cooperation between neighboring States have also proved successful in extending available resources as needs grow. Most important, perhaps, has been the expansion of the Federal partnership in providing funds for facilities construction, student loans, fellowships and grants for research and study, and the encouragement of innovative programs.

If the future management of higher education is to remain in the hands of educators, then we must have planning officers in colleges and universities trained to understand and work with this network of new alliances. These men and women must understand the academic and economic needs of higher education and use this understanding to make comprehensive plans for the future. We must recognize the importance of the college trustee, and provide him with opportunities to broaden his understanding of the influence he can exert. We must make sure that the staffs of the new agencies to coordinate higher education and programs of State and Federal assistance have had proper training and experience, so that they can serve community needs within a context of the long-range goals of higher education.

Federal Interest in Educational Manpower Needs

In this initial Federal assessment of the needs of the education professions, then, it is necessary to move beyond a tabulation of present vacancies in existing professional categories and look towards future needs, and to the methods through which we may best meet them. The recently funded Education Professions Development Act (EPDA) demonstrates the high priority that both the Congress and the President have given to educational manpower and training needs. Within the Office of Education a Bureau of Educational Personnel Development has been created to administer this act, together with some of the existing programs, including the Teacher Corps, the institutes and the teacher fellowship programs that the act absorbs. The section of the act pertaining to professional needs in higher education is administered by the Bureau of Higher Education.

The efforts of these bureaus are directed towards realizing the greatest possible benefits from Federal funds by encouraging programs which will "influence the influencers" of the educational system, people such as supervisors and teacher trainers who, potentially, are agents of change and who can serve as channels for the dissemination of innovative ideas. In addition to identifying and training those who can influence the system, the Federal Government is emphasizing programs that will have a lasting impact on the system, and that will encourage the system to build into itself the apparatus for becoming self-renewing.

The Education Professions Development Act is designed to assist educators in increasing both the quantity and the quality of educational personnel in schools and colleges--from preschool through graduate school and including both adult and vocational education. The comprehensive and flexible nature of this legislation permits us to apply the same kind of Federal effort to increasingly important areas such as early childhood training and vocational education that we have previously applied to the more traditional academic disciplines. The act recognizes that the training and retraining of teachers is central to any new curriculum or innovation in school organization, and that without the active involvement of teachers new programs will stand little chance of success. Additionally, it pays heed to the idea that the responsibility for the training of teachers lies not only with the teacher training institution but with the local school and the community it serves, a concept that also implies the active participation of the State.

Under the EPDA a number of approaches to the fulfillment of educational manpower needs will be possible. A thorough examination of the variety of avenues open to us will be facilitated by the provisions of the act calling upon the Office of Education to make an annual appraisal of the educational personnel needs of the Nation and to publish a report on current and long-term trends. Through this appraisal and those that follow it, must be developed methods of education manpower analysis that will illuminate the position of the education professions within the context of our entire society, producing a comprehensive base for long-range planning for all levels of education. Such an analysis obviously must be especially sensitive to manpower needs in the development of additional programs and to the innovative uses of existing personnel.

As the field of education assumes new tasks and broader responsibilities, there will be a growing need for people with competencies in other areas, from poetry to biochemistry, from plumbing to philosophy, people who might be persuaded to offer their expertise on a full- or part-time basis to the purposes of education. The EPDA recognizes the need to seek out such people, and authorizes funds for the dissemination of career information and recruitment. Congress did not appropriate funds for this program for the fiscal year 1969, however.

Other sources of additional manpower are taken into consideration by the EPDA. The States are encouraged to recruit and train teacher aides as well as members of the local community who have not previously been involved in education. Programs under this section of the act should assist local schools in trying new ways of using existing resources of the community, benefiting not only the schools but also making a substantial contribution toward the creation of new careers for members of the community.

The sections of the act given the greatest weight, both in the number of its provisions and the amount of its funding, are devoted to the training of elementary and secondary school personnel, including specialists in preschool, adult, and vocational education. The programs developed under these sections of the act can serve personnel in any field (except religion) and at any level, thus including not only teachers but teacher trainers, administrators, specialists of all kinds, and teacher aides. Projects can be preservice or inservice and of widely varying duration but may not include regular undergraduate preservice training. Many of the guidelines for these sections of the EPDA depart from previous practices in ways that give every indication of providing the kind of flexibility essential to the successful training of personnel in a rapidly changing field. Perhaps the most important of these features is the emphasis placed upon cooperation and collaboration among school districts, State departments of education, and colleges and universities in both the planning and the implementation of training programs.

Another unique feature of the guidelines for this section permits the allotment of grants for three different stages of project development. Funds are thus available for the planning and pilot stages of innovative programs, as well as for the operative stage, to allow initial planning and testing on a small scale. A related provision supplies limited funding for special projects which do not fit the guidelines governing the rest of the act, the provision is designed to encourage the testing of seemingly way-out concepts, and of high-risk but promising ideas and programs. Still another feature is designed to extend the benefits of the EPDA beyond the restrictions of previous legislation. In the past many schools and colleges have been excluded from participation in Federal programs because they lacked the resources to develop high quality proposals; funds will now be available for that exact purpose.

The guidelines for this section of the act devoted to the training of elementary and secondary school personnel also encourage the annual evaluation of all accepted projects by an institution, organization or agency with no direct interest in the specific program. Such independent evaluation will assist in making decisions as to whether an idea tested in the pilot stage should be put into widespread operation; it should also make it possible to learn a good deal from our failures as well as from our successes.

Several overall guidelines for the administration of this part of the EPDA have been set forth. They stress the need for including within a given proposal the means for disseminating information concerning the pilot project to other agencies and institutions; additionally, they make possible the funding of a single project from the resources available under more than one section of the act, or in combination with Titles I and III of the Elementary and Secondary Education Act and the college teacher institute and fellowship programs conducted by the Bureau of Higher Education. The guidelines emphasize the importance of concentrating resources upon high-priority national needs, in order to assure the greatest impact for Federal and other funds.

A major section of the EPDA is directed towards the training of higher education personnel. This section, as administered by the Bureau of Higher Education, will provide for fellowships and for short-term and regular-session institutes in non-Ph.D. programs for individuals serving or wishing to serve as college or university teachers or administrators. The provisions make clear the intent of the Congress to give particular attention to the preparation of teachers and administrators for junior and community colleges.

Programs for the development of trained personnel in the field of vocational education also are given impetus by a new section of the EPDA which provides funds for the training and retraining of vocational education personnel through leadership development grants for administrators, supervisors, teacher educators, researchers, and instructors. Institutions of higher education receiving funds for leadership development programs in vocational education must assure adequate support from other areas of graduate study, such as guidance counseling, educational administration, research, and curriculum development. This section of the act also authorizes Federal grants to State boards to pay the costs of cooperative programs for the training or retraining of experienced vocational education personnel. Such programs could include exchanges of vocational education teachers with skilled technicians or supervisors in industry, as well as inservice programs, and short-term or regular-session institutes to improve the qualifications of persons entering or re-entering the field of vocational education.

The Bureau of Educational Personnel Development will administer or coordinate the great majority of the Office of Education's programs in educational manpower training. This Bureau provides for the first time a single, central point of connection between the educational field and the Office of Education on matters relating to manpower and training; a point of connection that should not only prove most helpful but may additionally serve as a symbol of the high priority being assigned to educational personnel development by the Federal Government.

Through the Education Professions Development Act the Federal Government thus provides the funds to attack problems of educational manpower on many different fronts simultaneously. It makes possible the involvement of all who serve or might serve education, encouraging new alliances not only between recognized groups such as State departments of education, schools of education, universities, and the local schools themselves, but also between these groups and the larger community.

Diversity of Teacher Functions

The flexibility of approach built into the EPDA is an acknowledgment of the many jobs teachers have to do and of the many agents involved in teacher training. We have always asked our teachers to do a lot of things; each has been expected to know his field, to be a social director, a records-keeper, an inculcator of values, a private tutor and a symbol of the school in the eyes of the community. We continue to ask our teachers to be all these things, but in relation to a vastly more complex world, a world in which each of these major aspects of the teacher's role subsumes an increasing number of specialized tasks. As we identify and respond to individual student needs, we must have teachers capable of performing these duties at a level of excellence that may well be beyond the abilities of any one person. However valiant the effort, no one teacher can do all that must be done.

The realization that teachers are not omniscient is reflected in the array of specialized services schools now provided to students. Guidance counselors, media specialists, nurses, school psychologists, reading specialists, and librarians offer trained assistance in dealing with special problems. In the area of more purely instructional concerns, teachers are moving beyond the four walls of the single classroom by means of team teaching, which seeks to make the best use of the individual interests and strengths available in the school. Instructional technology offers other innovative techniques that can be of assistance to the teacher. But the extent to which these developments and departures are effective in improving instruction depends on how well they are integrated into the organizational structure of the school.

The importance of successful integration applies particularly to the growing number of nonprofessional workers in the classroom. The use of a nonprofessional worker is proving to be so successful that it is being extended and formalized in the increasing employment of officially designated teacher aides. The creation of this new job category can benefit not only the educational system but also the community by providing new careers for people with valuable abilities that up to now have gone unrecognized by the schools. However, there must be opportunities for building upon the initial experiences of these fledgling educators. Closing the door on the possibility of further advancement is to waste those developing skills gained in the course of employment. We must encourage through the creation of a career ladder the achievement of eventual full professional status.

If we are to get the most out of these new people in education, and at the same time permit them to grow within the system, we must not regard them as mere stopgaps seized upon in desperation. The tasks they perform and those they can perform are inextricably bound up with the traditional duties of teachers, and must be so regarded. What we need is a task analysis of all duties in education. The importance of the job is indicated by its difficulty: demands upon teachers, support personnel, and administrators have expanded their jobs to almost unmanageable proportions, and have resulted in a widespread blurring

of distinctions. Furthermore, there are a number of new educational ventures, public and private, which have grown up in response to needs not recognized or adequately dealt with in the public schools. These sometimes have achieved success, where the public schools have sometimes failed, exactly by recognizing such needs. Programs like Head Start, VISTA, and the street academies owe their effectiveness in large part to the personal involvement of their teachers with students and parents. Although these programs have been available to only a small number of students, their success in reaching previously disengaged young people suggests that public schools themselves will have to adopt some of their methods in the future, and make use of similar kinds of teachers, trained men and women with the sensitivity to community needs and problems that will allow them to work effectively not only as instructors in the school but in the community and the home.

The growing place in the instructional process of the educational products industry, which produces not only textbooks, films, and television programs, but innovative systems of computer-aided instruction, further diversifies the functions in education that must be related to school operations if their services are to be both useful and used.

A comprehensive task analysis, if conducted with future needs in mind, is likely to suggest not only the realignment of present personnel but the development of new kinds of jobs. For example, we may find it unrealistic to ask--as we now often do--that one person combine a sophisticated knowledge of an academic discipline with the sensitivity more often associated with a psychologist. We may also discover that the prodigious increase in the number of "facts" today requires us to teach children how to think and how to learn, instead of simply providing them with a set of such facts to be memorized. We would then have to supplement the traditional instructional staff by a "coordinator of resources," who could instruct students in how to use the repositories of information such as librarians, data banks, and calculators to his best advantage.

In the field of instruction alone, initial research has identified positions such as learning diagnosticians, visual literacy experts, systems analysis and evaluation experts, information systems and data base designers, community resource developers, and others. Not all of these people would be full-time employees in a single school; they might work in more than one school, or in a school and a university, or in an education-related activity such as television or publishing. But the need for their special skills is clear.

Training programs necessary to provide those skills can be more cogently constructed when based on a comprehensive task analysis. If, for example, we have identified a group of functions in education calling for engineering skills (such as in the development of technological hardware and software) we may more meaningfully involve the resources

of an engineering department in training these people. If we discover that the skills demanded by educational research have little to do with those needed by a practicing teacher, we will be able to act more intelligently in the preparation of educational researchers, perhaps separating their training more distinctly from that for teachers. We will probably also learn that many educational functions do not so much require skills as they do personal qualities, and that discovery will guide our recruiting efforts.

Yet, our efforts at identifying the functions and duties of those who serve education and establishing a differentiation of functions will go for nothing if we do not also adapt the structure of our schools, our licensing and accrediting policies, and our professional attitudes to these new understandings. Across the country, various experimental programs already in operation or nearing the end of the planning stage may give us some idea as to the way in which educational establishments can accommodate themselves to new ideas. Many of these new approaches call into question assumptions and practices under which both schools and training programs have long operated. For example, does the need for formal teacher training end with the receipt of a bachelor's or graduate degree? Are teachers interchangeable and identical parts, competent to handle any teaching assignment within their field and at their level? Can professional performance and development be accurately measured by course credits and length of service?

Differentiated Staffing

The diversity of demands upon schools and educators have grown to a point where an increase in the supply of qualified personnel by itself will not insure enough people to go around. A few schools are experimenting with the concept of differentiated staffing, one solution to the problem of how best to use the talents of our educators. It is based on carefully prepared definitions of the jobs educators perform, and goes beyond traditional staff allocations according to subject matter and grade level. For example, a differentiated staffing plan developed by Temple City, California, has created a logical hierarchy that includes not only teaching but instructional management, curriculum construction, and the application of research to the improvement of all systems.

Although, nationally, differentiated staffing is more concept than fact, the following four positions developed at Temple City suggest one way the plan might work:

1. The Associate Teacher is, typically, a beginning teacher, who spends most of his time in the classroom while simultaneously evaluating his performance in conferences with a supervisor.

2. The Staff Teacher, having had more experience, is assigned more difficult teaching responsibilities, including tutorial sessions and small group instruction, and additionally works on new curriculums and supervises their field testing.
3. The Senior Teacher, in addition to classroom teaching, consults with associate teachers, develops new teaching strategies, sets up inservice teacher training programs, and develops resource banks for new instructional units, including the use of media.
4. The Master Teacher has district-wide responsibilities in the application of research to curriculum design. At the same time he continues teaching in the classroom at least part of the time.

The aims of differentiated staffing can be realized through a number of different methods. Additional positions such as part-time tutors and aides on one hand and educational specialists on the other could be appended to either end of the hierarchy. Organization need not be hierarchical, but can be based on teams of peers. Whatever the method, however, the aim is to permit a variety of people to contribute. The housewife-teacher, for instance, can make her services available on a schedule satisfactory to her, and without hindering the professional advancement of the career-minded teacher. Indeed, the career-minded teacher is stimulated by such a system, which provides not only a hierarchy of more challenging and more significant roles but also allows for promotion and advancement as a teacher instead of solely as an administrator or supervisor.

If such plans for differentiated staffing are to go beyond the experimental stage, however, we must recognize the relationship between the needs of the schools and of other institutions. Differentiated staffing presents a challenge to the present system of teacher education. It suggests, for one thing, that a college education might not be the only route to a teaching career; that a variety of systems, timetables, and entry points might be provided for teacher preparation; and that many in our population might contribute to, as well as benefit from, the education of young people. We will clearly need to develop new alliances, among community, school, and university, in order to develop and train educational personnel who can meet the challenges of such systems in the future.

The Teacher Corps

Some of the kinds of new alliances we may expect to see develop have been excitingly demonstrated by the Teacher Corps, a nationwide effort to improve educational opportunities for the children of low income families by involving poverty area schools and local universities in the joint planning and operation of programs for training teachers of the poor. Teacher Corps members are involved in planning, conducting,

and evaluating their own training programs; it is a "participatory democracy" of the sort that we need throughout our educational system. The Teacher Corps is a promising model for teacher recruitment and education, one that might be profitably studied and emulated by other teacher educators. The major elements of the Teacher Corps approach include a brief period of intensive preservice preparation, followed by two years of carefully supervised participation in the workings of a school system, and coupled with both academic and professional courses at a nearby college or university. The intern is also expected to extend his classroom work into the community.

The most significant aspect of the Teacher Corps is the number of areas in which its effects are felt. Upon completion of the two-year program the intern receives a master's degree in education, a degree based upon far wider experience than has usually been the case in the past. He has been faced by the triple challenge of winning the confidence of students, the community, and school authorities. By mingling with the community he has helped to arouse greater parental interest in education and to ease the tensions that often exist between the schools and the community in poverty areas. His presence within the school itself has often made possible the development of special programs to assist slow learners, the kind of program that the understaffing of poverty area schools usually prohibits.

The Teacher Corps has exerted another kind of influence as well. Any university or teacher's college wishing to participate in the program must offer to its Teacher Corps interns special courses related to the local community in such areas as Negro history, ghetto psychology, linguistics, and urban sociology. Once created, these courses tend to move into the general curriculum of the university or teacher's college, usually in response to student demand. Thus the Teacher Corps has brought about a modification of the curriculum of schools of education, focusing greater attention upon teaching children of the poor. The new alliances it has fostered between poverty area schools, socially concerned interns, and universities, have had far-reaching benefits. And although Teacher Corps efforts have been directed primarily towards the poor, the principles behind the success of the program can unquestionably be applied in other situations.

Finally, the Teacher Corps has reinforced a belief that has been widely accepted but too rarely acted upon: training for educational personnel at all levels must be directly related to the schools themselves if it is to be fully relevant. The schools are now going through a period of upheaval as they try to fulfill new demands upon them. It is an effort that must be made if each student is to be given the chance to achieve personal fulfillment through an appropriate education in a vastly more complicated world. But, in order for the

schools to provide appropriate educational experiences they must be able to count on teacher preparation programs that turn out graduates prepared for the problems the schools face. The magnitude of these problems makes a viable relationship between the users and producers of teachers imperative as never before.

The School-University Partnership¹

The reciprocal responsibility of the schools and the universities in the training of educational personnel is central to the effective preparation of teachers and administrators. Neither the school nor the university can carry out its tasks successfully without the cooperation of the other; yet that is exactly what each has long tried to do. Those most deeply involved with educational theory and research have been institutionally separated from the settings in which actual practice occurs, thus curtailing the interaction between theory and practice that is prerequisite to meaningful inquiry in any field. This same separation has prevented the local schools from assuming responsibility for the ongoing training of their own staff.

As a result, teacher training institutions have been producing graduates whose competence is judged by the successful completion of courses which in too many instances bear little relationship to the problems they will actually encounter in the schools. Such graduates are considered to be fully qualified teachers (and are so certified), equal to duties as complex as those assigned to educators with many years of experience. There are a growing number of programs enabling teachers to return to a university or school of education for retraining, but they have been too often regarded as remedial, an attempt to correct inadequacies in earlier training, or as necessitated by some specific new curricular development, such as the new mathematics, that demands a reorientation. These programs, supported by Federal, State, and local funds, have been of considerable value in enriching the academic background of teachers, encouraging further graduate study, and presenting new instructional techniques for specialized needs, such as those in the urban schools. However, they do not go nearly far enough. They do not represent the kind of ongoing, inservice training essential for all educational personnel. If we are to take full advantage of the training opportunities offered by our schools, we must discard the idea that training after initial employment is merely remedial, and understand instead that it is an integral part of employment, necessary to professional growth and continued competence.

The most effective preparation for any occupation, including the education professions, involves the trainee in the performance of specified tasks, under supervision, in the actual work setting. The kind of training implied by such an understanding can be effected only within a school system that has analyzed its educational tasks and constructed an appropriate differentiation of positions. Given that differentiation, there will exist a constantly developing relationship between the tasks of the student-teacher and of the certified professional

educator. Trainees will be placed almost immediately in a school and will be given early responsibility for tasks equal to their abilities. As they learn and grow they will move to positions of increasing responsibility. Senior members of the faculty will have the opportunity to use their years of experience to full advantage in supervising beginning instructors.

A system of this kind does not mean that all professional training, preservice or inservice, will take place within the school itself. The resources of the university are indispensable in providing teachers with a broad general education, a fluent command of an academic field, and the ability to understand the effects of international events on local problems. But it is important that the clinical aspects of the training experience be given their due weight, allowing for a greater relevance of theoretical education courses to real concerns and encouraging a continuing self-evaluation of educational practices and curriculums.

The uses of even limited cooperation between school and university have been demonstrated in a number of programs across the country. The alliance between Harvard University and the Newton, Massachusetts, public schools in the preparation of educational personnel is perhaps the best known. Each institution contributes from its strengths. Harvard as a first-class university is able to attract individuals interested in training to be teachers, administrators, or guidance counselors. Newton provides the setting and the practical knowledge necessary to a relevant training experience. Selected Newton faculty members are given joint appointments to the Harvard Graduate School of Education, and are freed from some of their usual teaching load so that they may supervise teaching interns. The interns complement their academic training by working as full-time, paid teachers in schools and other educational agencies. At the end of their internship and period of study, teaching interns are awarded the degree of Master of Arts in Teaching. The supervising members of the Newton faculty, on the other hand, are paid for their job as master teacher and are given the option of enrolling free of charge in courses at the university.

This kind of cooperation in the training of beginning teachers should be extended to include opportunities for those teachers who have already completed their initial preparation. However, the creation of even more extensive alliances between teacher training institutions and local schools will require some organizational changes on the part of both. The adoption by the schools of some form of differentiated staffing is a fundamental step; and the organization of any such staffing pattern must reflect its central position in the training process. It will be necessary to identify those faculty members capable of participating in the training process, to free them from some of their classroom responsibilities, and to pay them according to the advanced nature of the new function they are being asked to perform.

Full acceptance of the need for training programs for experienced teachers will also require certain adjustments on the part of universities and colleges. Courses will have to be designed in cooperation with local schools and offered in places and at times convenient to the working teacher. In many cases it will probably be necessary to give the courses in the school itself, or on television, as is already being done; either eventuality should result in a re-evaluation of whether or not graduate students should be required to live on campus. Greater university-school cooperation will also be necessary if we want to build programs which "include in" the people of the community. Such programs need not lead to a degree, but if we are to make full use of available human resources in the community, we must give people the chance to get what they need from training programs, as well as seeing that their training fulfills the needs of the schools.

In Portland, Oregon, a comprehensive public high school that will test the validity of these ideas is now taking shape. Its planners have conceived of a public school organized along the lines of a teaching hospital; instruction of students, preservice and inservice teacher education, basic and applied research, and the development of curriculum materials will all take place under one roof. The planners hope to draw upon the resources of the community and of local colleges and universities in recruiting a staff that will perform duties from the most basic and concrete to the most abstract and far-reaching, involving not only instruction, but also the preparation of materials, pupil counseling, administration, and research and inquiry into all aspects of the school's operation.

By housing in one institution a comprehensive high school that is also a clinical high school, the designers of the Portland experiment hope to provide an atmosphere in which some specific aspects of the training of educational personnel can be tested. These aspects include the gradual introduction of student teachers to the tasks of teaching under the tutelage of master teachers; the integration of the theoretical and practical sides of teacher training; the creation of a climate in which teachers can plan, analyze, and evaluate their own performances; the exploration of various alternative role differentiations; and the direct involvement of teachers in curriculum development and in the formulation of the overall philosophy and curricular objectives of the school.

Teacher Certification

Experimental programs like Portland's cannot be widely successful until we re-examine our methods of teacher certification and licensing. Some States (Massachusetts, Washington, and Florida among them) have already begun to grapple with this problem. These States, and others such as New York, recognize the need to establish reciprocal certification standards that will reflect the mobility of today's corps of educators. They have recognized that needed changes in our school systems, aimed at making the fullest use of the Nation's educational

manpower resources, are dependent for their ultimate success upon sophisticated revision of the laws governing the certification of teachers. If we are to question the practice of requiring lock-step training programs for teachers, we must also question the assumption, on which most of our States base their certification policies, that a person with certain degrees or courses will perform better than a person without them. Fortunately, there is a growing realization that without a considerable restructuring of our certification programs many individuals who might well make substantial contributions to education will be prevented from offering their abilities. As we begin to identify new positions within our schools, we must make certain that the people with the talents needed to fill them have the opportunity to do so.

There is no question that broad minimum standards are necessary in a wide range of categories. The difficulty lies in developing criteria for judgment which are sensitive to the need for both flexibility and the maintenance of standards, and which at the same time can be used with efficiency on an institutional basis. Certification should distinguish between levels of competence, protect the public against incompetent professionals in our schools, make some provision to guard against professional obsolescence, and reflect the differing criteria necessary to the judgment of competence in differing areas of the education professions. "Teacher Certification and Preparation in Massachusetts," a study prepared by the Massachusetts Advisory Council on Education, addresses itself to these concerns. Recognizing the need to tap and fully utilize new sources of human and technological assistance in our schools, the Advisory Council recommends that certification be based upon knowledge and professional performance rather than upon transcript records. The development of professional standards by representative leaders in each field is urged, with the further specification that teachers and scholars should be among those regarded as representative leaders, as well as pedagogical specialists and school officials. In developing standards, the objective should be to assure that all persons granted licenses will have both initial and continuing minimum acceptable performance ability at the level of certification.

Important to a flexible certification policy is the establishment of alternative procedures that allow for individual and institutional differences in preparation. The Massachusetts study suggests, among other things, certification examinations that include performance tests to be conducted either by the preparing institutions or by State credentials committees, and the use of professional attestation by qualified colleagues in schools and colleges.

The study also recommends that the number of differing kinds of licenses be kept to a minimum, and that specialized qualifications be established by academic, work experience, or performance records rather than by license. The four levels of licenses specifically suggested are: Internship licenses for those in training on a full-time basis; associate teacher licenses for beginning teachers; professional licenses for those who demonstrate the ability to handle professional assignments independent of supervision; and educational specialists licenses for high level teachers and those involved in particular kinds of specialization, such as counseling, supervision, and the administration of professionals in cognate fields. For paraprofessionals it is suggested that no license be required, aside from those that may otherwise be the practice in a trade field. Periodic renewal of licenses, based on the demonstrated maintenance of scholarship and professional competence, is recommended on an annual basis for interns, every 3 years for associate teachers and every 7 years for professionals and specialists.

Teacher certification under this kind of program would be far more comprehensive and much more accurately related to educational manpower needs. By establishing performance as the ultimate criterion in measuring competence, it permits the utilization of people with needed skills who lack the desire or ability to meet rigid certification requirements which may indeed be irrelevant to the tasks they hired to perform. On the other hand, comprehensive certification programs will demand a much greater degree of cooperation between the local schools, the colleges and universities, and the State accrediting agencies. These institutions will have to work together both in developing educational programs relevant to today's and tomorrow's students and in the task of evaluating the competence of the people that staff these programs.

OFFICE OF EDUCATION PRIORITIES

In this time of need and challenge our educational agencies do not have the resources available to meet adequately the Nation's educational manpower and training requirements. More funds for training are needed by local schools, colleges, and State departments of education. In view of the fact that the needs outrun our capacity to meet them, the establishment of priorities for the allocation of funds is essential. Since, in most cases, the Office of Education can only advise and recommend, it is in that spirit that we offer this report to be considered by agencies and institutions as they plan their programs and allocate their resources.

However, in administering the Education Professions Development Act, the Office of Education can--and must--establish priorities to help meet the urgent education manpower needs discussed in this report.

During the fiscal year 1970, Part A, Section 504, of the act, which provides for a national recruitment effort to attract qualified persons to the education professions, will be initiated on a modest scale. Recruitment is an essential first step toward improving the quality of persons engaged in education, and emphasis will be placed on the recruitment elements of all EPDA programs.

The Teacher Corps, Part B-1 of the EPDA, is designed to attract able and highly motivated persons to teaching children from low-income families. It will receive the largest single allocation of EPDA funds during fiscal 1970. Also, many of the programs undertaken under other parts of the legislation will benefit from what has been learned in Teacher Corps projects.

Part B-2 of the act, which authorizes formula payments to States for recruiting and training persons to meet critical shortages of classroom personnel in local school districts, will receive an allocation that approximates the large programs under Parts C and D. Under Part B-2 the States, in cooperation with the Office of Education, will be giving particular attention to providing aide personnel for teachers and to attracting housewives and others in their local communities into the schools, many times on a regular part-time basis.

Under Part E of EPDA, which is designed to support programs for the development of higher education personnel, priority is assigned in fiscal year 1970 to the training and retraining of teachers and other staff members for junior and community colleges and for "developing" four-year institutions. In addition, support will be given to programs designed to increasing the quality of undergraduate instruction and to preparing administrators, and specialists in educational media and personnel services for institutions of higher education.

Part F of the act, which provides for training vocational education personnel, was enacted in the fall of 1968. No fiscal year 1970 appropriation is anticipated for this part of the legislation, although vocational-technical personnel will be trained under one of the 11 programs given priority under Parts C and D.

In administering Parts C and D of the EPDA for fiscal year 1970, the Office of Education will allocate 85 percent of the funds available in support of the high priority programs described below. The remaining 15 percent of the funds will be made available to programs of merit which do not fall into these categories, including a few "high risk" projects which might promise a substantial return for a small investment.

Training Teacher Trainers

To achieve a significant multiplier effect, the Office of Education will support training opportunities for personnel responsible for training teachers, for these are the educators who have the greatest influence on the preparation of classroom teachers. These programs will emphasize collaborative planning and execution. Teacher trainers to be served include college faculty both in education and other subject matter fields and local school personnel who supervise teachers. The program will support those efforts which attract and prepare new teacher trainers as well as those which upgrade the skills of existing personnel.

Career Opportunities Program

This program will encourage the development of career ladders to permit entry into the field of education of men and women who either lack sufficient formal education or have been trained for other fields. The program will have two emphases. First, it will support efforts to attract people from low-income families, including returning veterans, to new careers in schools. While serving as aides or technicians, they will have the opportunity to prepare and qualify for a variety of other jobs in education, including teaching. Second, it will support projects built on the Master of Arts in Teaching and Teacher Corps models to attract talented college graduates to work in schools in low-income areas.

Leadership Development in Education

This program is designed to help recruit and to prepare individuals to serve as leaders in teaching, educational planning, curriculum development, and other key roles in education. It will emphasize the preparation of college graduates to begin to teach. In addition, it will help prepare people in other fields to enter education. The program builds upon the Prospective Teacher Fellowship Program and the Master of Arts in Teaching Program. Emphasis will be placed upon the effective combination of academic competency and relevant experience in the schools and community.

Teachers of Basic Subjects

The Office of Education recognizes the vital importance of elementary and secondary teachers being well prepared in the basic fields of instruction, including the arts and the humanities, mathematics, the sciences, history, geography, economics, civics, English, reading, foreign languages, industrial arts, speech, health, physical education, international affairs, and English as a second language. Institutes and other training projects in schools and colleges will be supported to improve the competence of experienced classroom personnel in these fields.

These programs will emphasize preparing classroom personnel to understand and use the results of research and curriculum development projects in the various fields.

Early Childhood Personnel

Classroom and leadership personnel need to be introduced to the most promising theories and practices in the education of young children. The EPDA program in this area will support the recruitment and preparation of aides, teachers, administrators, and other personnel to serve youngsters between 3 and 8 years of age in preschool programs, day care centers, kindergartens, and in the early years of the elementary school.

Teachers for the Handicapped

The EPDA effort will complement and support the personnel training programs under other legislation administered by the Office of Education's Bureau of Education for the Handicapped. Since most handicapped children remain in regular classrooms, the EPDA program stresses the training and retraining of regular classroom teachers to understand and respond to the needs of these children. This program will also support projects to recruit and prepare special aides to work with handicapped children in separate as well as regular classes.

Vocational and Technical Education Personnel

The Office of Education will respond to urgent needs for preparation of vocational and technical school personnel at both the secondary and post-secondary levels. The program will provide opportunities for teachers, administrators, and support personnel to meet the challenge of educating students for the world of work in a rapidly changing technological society. Projects to be supported will include graduate fellowships for the development of leadership in vocational and technical education and inservice training projects for the development of increased instructional skill.

Teacher Improvement Through Curriculum Development

Projects which merge curriculum development and staff development will be supported under this program, which is based on three assumptions: First, many significant and high quality projects have failed because the developers did not recognize the importance of training teachers to handle the material; second, college and university scholars and local schoolteachers need to join forces to develop curriculum and to train educational personnel to implement these curriculums; and third, when teachers participate in developing and adapting curriculum, they increase their own teaching skill.

Strengthening School Administration

This program is based on the assumption that the decisions, attitudes and abilities of school administrators have wide-ranging influence upon every aspect of the school system. It will provide more talented, knowledgeable, and sensitive school superintendents, principals, supervisors, and other administrative specialists for elementary and secondary schools and school systems by means of demonstration and developmental training projects. Projects will be supported which recruit and prepare new school administrators as well as projects which provide for the inservice training of experienced administrators.

Support Personnel

Emphasis in this program will be on training and retraining personnel who support students and teachers in two ways: in utilizing educational media, and in providing pupil personnel services. Areas such as health, guidance, school psychology and social work, community relations, and instructional media will receive special attention.

More Effective School Personnel Utilization

In schools which are developing more flexible and differentiated ways of utilizing both time and talent, the staff needs training to perform new roles effectively. This program will support the training needed for these personnel. The major objectives, in addition to increasing the effectiveness of the instructional program for students, are the redistribution of teacher talent, the reduction of teacher attrition, the development of a range of responsibilities and specialties to attract and hold capable people in careers in education.

Major emphasis among these programs will be given to those for Training of Teacher Trainers, Career Opportunities Program, and for Teachers of Basic Subjects. Each of these will receive an allocation of 10 to 15 percent of the funds. In addition, 15 percent of the funds under Parts C and D are reserved to support projects that do not fit any of the above-described categories.

These programs are not mutually exclusive. Many projects will combine elements of several programs. For example, emphasis on subject matter and on teachers of the basic subjects will be found throughout the other programs, and, in addition, personnel to serve handicapped children and children from low-income families will have significant opportunities for training in most of the priority programs. Fifty percent of all the funds available under Parts C and D of EPDA will go to projects for personnel who serve children of low-income families. Fifteen percent of all the funds in these parts will support projects which will be of direct benefit to handicapped children.

The EPDA for 1970 programs, in their diversity, reflect the variety of persons and institutions whose participation is necessary to the development of sufficient numbers of qualified people to serve education. For the first time, there is Federal legislation comprehensive enough to affect the whole spectrum of education, and flexible enough to allow for the rearrangement of priorities as future needs develop. These new programs are directed not simply to the specific challenges involved in training more and better people, but to the general and continuing challenge to create a whole new manpower strategy for American education.